

On the genus *Eriogynia*.

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(WITH PLATE XIV.)

The discovery of a remarkable rosaceous plant, totally unlike in appearance all ordinary species of *Spiræa*, and yet in its flowers and fruit very close to another peculiar western species, the *Spiræa cæspitosa* of Nuttall, has led me to an examination of the entire group of allied species, the results of which are here given.

The new species was discovered by Rev. F. D. Kelsey on July 4, 1888, growing in large dense cushion-like masses high up on the precipitous cliffs overhanging the Missouri river at "The Gate of the Mountains," near Townsend, Montana. It sends its long roots deep into the crevices of the rocks, while the slender woody branches, many times subdivided, are crowded together and densely covered with the long-persistent imbricated leaves, which are only one or two lines long. Only the outer leaves of the mass remain green, the lower soon becoming a light rusty brown. The flowers are wholly concealed, hidden away within the clump and solitary on the ends of the branches, but often appearing lateral from the prolongation of a side shoot. The very short pedicel does not raise the flower above the leaves that surround it. The characters of the flower and fruit are so well given in the accompanying figure as to need no farther description.

For comparison Mr. Faxon has added a figure of *Spiræa cæspitosa*, which has the same habit of growth, forming dense mats on the surface of rocks, with the similar but much larger leaves in rosettes, the flowers in close racemes upon bracteate terminal peduncles. This species formed the section *Petrophytum* of Nuttall, as published in Torrey and Gray's Flora, to which Maximowicz has also referred a shrubby Mexican species, *S. parvifolia*, Benth., that belongs, however, rather in another section (*Holodiscus*) with *S. dumosa*.

Still another dwarf suffrutescent species is the *S. pectinata* of Torrey and Gray, upon which Hooker based the genus *Eriogynia*, and which is also represented on the plate.



The habit here is much the same, though less densely cespitose, and the palmately divided and nerved leaves are more scattered. The flower and fruit show other differences of more or less importance. The margin of the disk that lines the calyx-tube is more thickened and crenately lobed, and outside this margin, as in the other species, are inserted the distinct stamens approximately in one row, of which those opposite to the middle of the sepals are filiform to the base. The seeds have a loose testa much longer than the embryo, similar to those found in *Sorbaria* (*Spiræa sorbifolia*, etc.).

Unlike as these species are, yet they are more nearly related to each other than either of them is to any other species that has ever been included in *Spiræa*. If *Eriogynia pectinata* is rightly separated from *Spiræa*, as I think, then *S. cæspitosa* should rather be joined with it than retained in *Spiræa*, and with it should go our new species, which I have accordingly named *E. uniflora*. The marked differences between these species, so marked that some would probably consider them generic, justify the designation of three sections, *Eriogynia* proper, *Petrophytum*, and *Kelseya* for *E. pectinata*, *E. cæspitosa*, and *E. uniflora* respectively, the distinguishing characters of which are obvious.

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## Contributions to the knowledge of North American Sphagna. IV.

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### VI. *Sphagna subsecunda*.

A. Leaves on both sides entirely without pores; rarely on the outer side with appearances of resorption, here and there, between the very strong and prominent fibril-bands, in the apical half of the leaf. Chlorophyllose cells in cross section broad-rectangular to broad parallel-trapeziform, with very thick walls, especially on the free-lying outer side, the lumen small, roundish-oval. Stem nearly branchless or with 1 or 2 (very seldom 3) uniform branchlets; isophyllous, the stem leaves very slightly larger.

24. *S. Pylaiei* BRID. Bryol. Univ. 1. Suppl. p. 749 (1827).

Syn.: *S. sedoides* Brid. Bryol. Univ. 1. Suppl. p. 750 (1827).

*Hemitheca Pylaiei* Lindb. MSS. 1879.

Newfoundland (*de la Pylaie*); New York (*Peck*); New Hampshire (*James*); New Jersey (*Austin*); Carolina (*Sullivant*); Miquelon Island (*Delamare*).